

S/N 09/132,157

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Leonard Forbes

Examiner: Mark Prenty

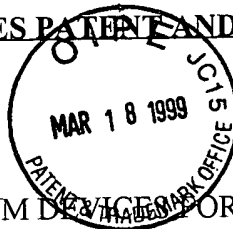
Serial No.: 09/132,157

Group Art Unit: 2822

Filed: August 11, 1998

Docket: 303.229US2

Title: SILICON-GERMANIUM DEVICES FOR CMOS FORMED BY ION IMPLANTATION AND SOLID PHASE EPITAXIAL REGROWTH



AMENDMENT AND RESPONSE

Assistant Commissioner for Patents  
Washington, D.C. 20231

In response to the Office Action of December 15, 1998, please amend the above identified patent application as follows:

IN THE CLAIMS

Please amend claims 11, 24-28, 30 and 32-33 as provided below.

11. (Once amended) A semiconductor transistor, comprising:
- a silicon substrate;
  - a gate oxide, coupled to the substrate;
  - a gate, coupled to the gate oxide;
  - source/drain regions formed in the substrate on opposite sides of the gate; and
  - a  $\text{Si}_{1-x}\text{Ge}_x$  channel region, having a germanium molar fraction of  $x$ , and formed in the substrate, underneath and adjacent the gate oxide and between the source/drain regions[.];
- wherein the  $\text{Si}_{1-x}\text{Ge}_x$  channel region has a channel length less than  $7\mu\text{m}$ .

24. (Once amended) A semiconductor transistor formed on a silicon substrate, comprising:
- a  $\text{Si}_{1-x}\text{Ge}_x$  channel region, having a germanium molar fraction of  $x$ , and formed in the substrate, underneath and adjacent a gate oxide and between a source region and a drain region[.];
- wherein the  $\text{Si}_{1-x}\text{Ge}_x$  channel region has a channel length less than  $7\mu\text{m}$ .

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TECHNOLOGY

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D27  
Q2